

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Withdrawn) A pseudo-thermosetting neutralized chitosan composition, which comprises 0.1 to 2.0 wt/v %, based on the total composition, of a homogeneously reacetylated chitosan derived from a chitosan having a deacetylation degree of 80-90 %, having a molecular weight of not smaller than 200 kDa and a deacetylation degree of 30-60 %, neutralized with an hydroxylated base, wherein said composition forms a phosphate free transparent hydrogel at a temperature higher than 5°C.

2. (Withdrawn) The pseudo-thermosetting neutralized chitosan composition according to claim 1, comprising 0.5 to 1 wt/v %, based on the total composition, of said homogeneously reacetylated chitosan.

3. (Withdrawn) The pseudo-thermosetting neutralized chitosan composition according to claim 1, wherein the deacetylation degree of said homogeneously reacetylated chitosan is 45 to 55 %.

4. (Withdrawn) The pseudo-thermosetting neutralized chitosan composition according to claim 1, wherein the molecular weight of said homogeneously reacylated chitosan is not smaller than 600 kDa.

5. (Withdrawn) The pseudo-thermosetting neutralized chitosan composition according to claim 1, further comprising a diol having a distance of at least 4.7 Å between its hydroxyl groups.

6. (Withdrawn) The pseudo-thermosetting neutralized chitosan composition according to claim 5, wherein said diol is 1,3-propanediol.

7. (Cancelled).

8. (Withdrawn – Currently Amended) The homogeneously reacylated chitosan process according to claim 107, wherein ~~the treating step f)~~ includes the steps of:

~~f 1)~~ dialyzing chitosan obtained in step e) to eliminate salts produced during reacylation in order to obtain a homogeneously reacylated chitosan solution;

~~f 2)~~ filtrating the chitosan solution obtained ~~in step f 1)~~ to eliminate insoluble particles of chitosan;

~~f-3}~~precipitating chitosan contained in the filtrated solution obtained in ~~in~~
~~step f-2}~~ and then drying chitosan to obtain a homogeneously reacetylated
chitosan having a deacetylation degree of 30 - 60 %.

9. (Withdrawn - Currently Amended) The homogeneously reacetylated
chitosan~~process~~ according to claim 8~~10~~, wherein ~~the precipitating step f-3}~~
includes addition of a mixture of NH₄OH/methanol.

10. (Currently Amended) A homogeneously reacetylated chitosan having
a molecular weight of not smaller than 200 kDa and a deacetylation degree of
30-60% obtained by ~~the~~a process ~~as claimed in claim 7~~ for use in the
preparation of a pseudo-thermosetting neutralized chitosan composition
forming a phosphate-free transparent hydrogel at a temperature higher than
5°C, wherein the process comprises:

filtrating a chitosan having a molecular weight of not smaller than 200
kDa and a deacetylation degree of 80 to 90 % dissolved in an acidic medium to
eliminate insoluble particles;

precipitating chitosan contained in the filtrated acidic solution to obtain
chitosan free of insoluble particles;

preparing a cooled acidic solution of the chitosan free of insoluble particles obtained at a temperature lower than 5°C to obtain a cooled acidic solution of chitosan free of insoluble particles;

preparing a cooled acetic anhydride solution containing a predetermined amount of acetic anhydride in methanol at a temperature lower than 5°C;

reacetylating chitosan by adding dropwise, under homogeneous conditions, the cooled acetic anhydride solution free of insoluble particles to the cooled solution of chitosan to provide a crude homogeneously reacetylated chitosan having a deacetylation degree of 30-60 %;

treating said crude chitosan to eliminate salts produced during reacetylation and insoluble particles of chitosan to obtain a homogeneously reacetylated chitosan having a deacetylation degree of 30-60 %.

11-21. (Cancelled).

22. (New) A homogeneously reacetylated chitosan having a molecular weight of not smaller than 200 kDa and a deacetylation degree of 30-60% for use in the preparation of a pseudo-thermosetting neutralized chitosan composition forming a phosphate-free transparent hydrogel at a temperature higher than 5°C.